Draft Recommendation ITU‑T Z.161

Testing and Test Control Notation version 3: TTCN-3 core language

Summary

Recommendation ITU‑T Z.161 defines TTCN-3 (Testing and Test Control Notation 3) intended for specification of test suites that are independent of platforms, test methods, protocol layers and protocols. TTCN-3 can be used for specification of all types of reactive system tests over a variety of communication ports. Typical areas of application are protocol testing (including mobile and Internet protocols), service testing (including supplementary services), module testing, testing of CORBA based platforms and APIs. The specification of test suites for physical layer protocols is outside the scope of this Recommendation.

The core language of TTCN-3 can be expressed in a variety of presentation formats. While this Recommendation defines the core language, Recommendation ITU‑T Z.162 defines the tabular format for TTCN (TFT) and Recommendation ITU‑T Z.163 defines the graphical format for TTCN (GFT). The specification of these formats is outside the scope of this Recommendation. The core language serves three purposes:

1) as a generalized text-based test language;

2) as a standardized interchange format of TTCN test suites between TTCN tools;

3) as the semantic basis (and where relevant, the syntactical basis) for the various presentation formats.

The core language may be used independently of the presentation formats. However, neither the tabular format nor the graphical format can be used without the core language. Use and implementation of these presentation formats shall be done on the basis of the core language.

The first revision of the Recommendation adds numerous extensions to the language (parameter default values, type parameterization is moved to another document (Advanced parameterization), special real values and exclusive range bounds, visibility restrictions of imported definitions, template restrictions, implicitly omitting fields of values and templates, break/continue statements, new predefined functions etc.) and contains numerous clarifications (e.g., on sub-typing structured types, type compatibility, execution of the alt statement etc.), corrigenda and editorial corrections.

This second revision of the Recommendation contains amendments, clarifications, corrigenda and editorial corrections.

This Recommendation is technically aligned with ETSI ES 201 873-1 V4.4.1 (2012-04).

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